



Special Patients



Hearing impairments



Hearing impairments

■ Types

- ☐ Conductive deafness
- ☐ Sensorineural deafness



Etiologies

- **Conductive deafness (curable)**
 - ☐ Infection
 - ☐ Injury
 - ☐ Earwax



Etiologies

■ Sensorineural deafness (many incurable)

- ☐ Congenital
- ☐ Birth injury
- ☐ Medication-induced
- ☐ Viral infection
- ☐ Tumors
- ☐ Prolonged exposure to loud noise
- ☐ Aging



Recognition

- **Hearing aids**
- **Poor diction**
- **Inability to respond to verbal communication in absence of direct eye contact**



Accommodations

- **Retrieve hearing aid**
- **Paper/ pen**
- **Maintain position so patient can read lips**
- **Use of an “amplified” listener**
- **Picture of basic needs/ procedures**



Accommodations

- **American Sign Language (ASL)**
- **Interpreter**
 - **Notify receiving facility as early as possible**



Accommodations

- **Do not shout**

- ☐ **80% of hearing loss is related to loss of high-pitched sounds**
- ☐ **Use low-pitched sounds directly into ear canal**

- **Do not exaggerate lip movement**



Visual impairments



Etiologies

- **Congenital**
- **Injury**
- **Infection (C.M.V.)**
- **Glaucoma**
- **Degeneration of eyeball, optic nerve or nerve pathways**



Accommodations

- **Retrieve visual aids**
- **Describe everything you're going to do**
- **Provide sensory information**
- **If ambulatory, guide by leading, not by pushing**
- **Allow guide dogs to accompany patient**



Speech impairments



Types

- **Language disorders**
- **Articulation disorders**
- **Voice production disorders**
- **Fluency disorders**



Language disorders

■ Etiologies

- ☐ Stroke
- ☐ Head injury
- ☐ Brain tumor
- ☐ Delayed development
- ☐ Hearing loss
- ☐ Lack of stimulation
- ☐ Emotional disturbance



Language disorders

■ Recognition

- ☐ Slowness to understand speech
- ☐ Slow growth in vocabulary and sentence structure



Articulation disorders

■ Etiologies

- ☐ Damage to nerve pathways from brain to muscles in larynx, mouth or lips
- ☐ Delayed development from:
 - hearing problems
 - slow maturation of nervous system

■ Recognition

- ☐ Speech slurred, indistinct, slow, or nasal

Voice production disorders

■ Etiologies

- ☐ Disorder affecting vocal cord closure
- ☐ Hormonal or psychiatric disturbance
- ☐ Severe hearing loss

Voice production disorders

■ Recognition

- ☐ Hoarseness
- ☐ Harshness
- ☐ Inappropriate pitch
- ☐ Abnormal nasal resonance



Fluency disorders

- **Etiology**
 - Not fully understood
- **Recognition**
 - Stuttering



Accommodations

- **Allow patient time to respond**
- **Provide aids when available**



Obesity



Etiologies

- **Caloric intake > Calories burned**
- **Low basal metabolic rate**
- **Genetic predisposition**



Accommodations

- **Appropriately-sized diagnostic devices**
- **Maintain professionalism**
- **Additional assistance for lifting, moving**



Paraplegia/ Quadriplegia



Description

- **Paraplegia**

- ☐ **Weakness or paralysis of both legs**

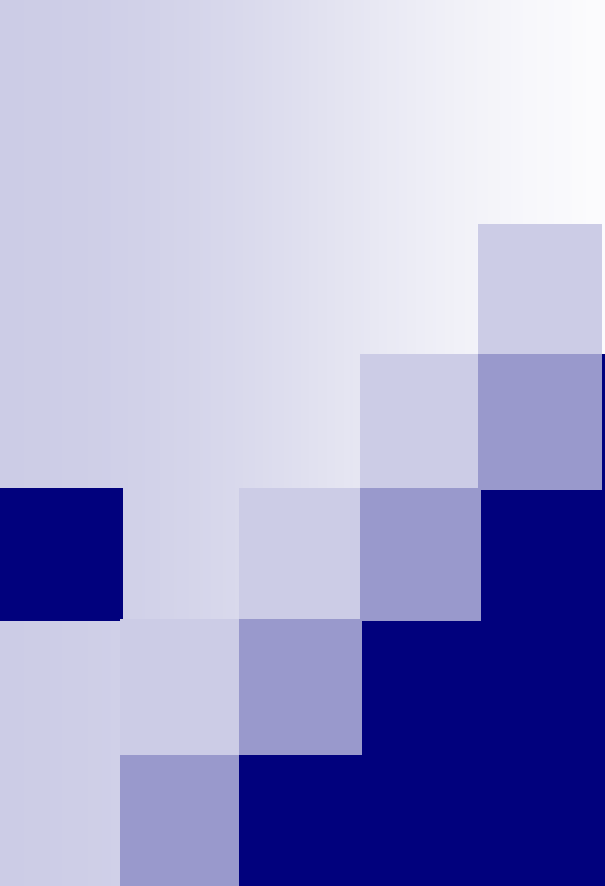
- **Quadriplegia**

- ☐ **Paralysis of all extremities and trunk**



Accommodations

- **Airway/ventilation management**
- **Patients with halo traction device**
- **Ostomies:**
 - ☐ Trachea
 - ☐ Bladder
 - ☐ Colon
- **May require additional assistance/
equipment**



Mental illness



Description

- **Any form of psychiatric disorder**



Etiologies

■ Psychoses

- ☐ **Patient perceptions of reality radically different**

■ Neuroses

- ☐ **Patient perceives reality normally but reacts to it inappropriately**



Recognition

- **Behavior not always affected**
- **May present with signs and symptoms consistent with underlying illness**



Accommodations

■ Don't be afraid to ask about

- ☐ History of mental illness
- ☐ Prescribed medications
- ☐ Whether patient is taking medications as prescribed
- ☐ Concomitant ingestion of alcohol, other drugs



Accommodations

- **Solicit permission before beginning assessment**
- **Treat as patient that does not have mental illness, unless call is related specifically to the mental illness**



Developmental disabilities

- **Impaired or insufficient development of the brain**
- **Causes an inability to learn at a usual rate**



Down's syndrome



Etiology

- **Chromosomal abnormality (trisomy -21)
resulting in:**
 - **Mild to severe mental retardation**
 - **Characteristic physical appearance**



Recognition

- Eyes slope up at outer corners; folds of skin on either side of nose cover the inner corners of eye
- Small face, features
- Large, protruding tongue
- Flattening of back of head
- Hands short, broad



Accommodations

- **IQ varies from 30-80**
- **Approximately 25% have a heart defect at birth**
- **Articulation of C-1 on C-2 may be unstable**



Emotional impairments

■ Etiologies

- ☐ Neurasthenia
- ☐ Anxiety neurosis
- ☐ Compulsion neurosis
- ☐ Hysteria



Arthritis



Description

- **Inflammation of joint**
- **Characterized by:**
 - ☐ **Pain**
 - ☐ **Stiffness**
 - ☐ **Swelling**
 - ☐ **Redness**



Types/etiologies

- **Osteoarthritis**
- **Rheumatoid arthritis**
- **Uremic arthritis (gout)**



Accommodations

- **Decreased range of motion/ mobility may limit physical exam**
- **Limited mobility**
- **Make equipment fit patient, not vice-versa**
- **Pad all voids**
- **Elicit current medications**



Cerebral palsy

■ Description

- ☐ Non-progressive disorder of movement and posture
- ☐ Caused by injury to brain during its early development
- ☐ A symptom complex rather than a specific disease

Types

- **Spastic (70% of cases)**

- ☐ Upper motor neuron involvement
- ☐ Abnormal stiffness and contraction of groups of muscles
 - Hemiplegia
 - Paraplegia
 - Quadraplegia
 - Diplegia (intermediate state between paraplegia and quadraplegia)

Types

- **Athetoid or dyskinetic (20%)**
 - Basal ganglia involvement
 - Involuntary, writhing movements of:
 - Extremities (athetoid)
 - Proximal limbs and trunk (dyskinetic)
 - Movements increase with emotional tension; disappear during sleep



Types

- **Ataxic (10%)**

- ☐ **Cerebellar involvement**
- ☐ **Loss of coordination and balance**
- ☐ **Unsteadiness**
- ☐ **Wide-based gait**
- ☐ **Difficulty with rapid or fine movements**



Etiologies

■ Prepartum

- ☐ Cerebral hypoxia
- ☐ Maternal infection
- ☐ Kernicterus (liver failure)

■ Postpartum

- ☐ Encephalitis
- ☐ Meningitis
- ☐ Head injury



Accommodations

- **75% mentally retarded**
- **25% have seizures**
- **Many with athetoid and diplegic cerebral palsy are highly intelligent**



Accommodations

- May require additional resources to facilitate transport
- May need suctioning, due to increased oral secretions
- If contractures present:
 - ☐ Pad appropriately
 - ☐ Do not force extremities to move



Cystic fibrosis



Description

- **Inherited metabolic disease of exocrine glands and eccrine sweat glands**
- **Primarily affects digestive, respiratory systems**
- **Begins in infancy**



Etiology

- **Autosomal recessive gene**
- **Both parents must be carriers**
- **Incidence**
 - **Caucasians--1:2000**
 - **Blacks--1:17,000**
 - **Orientals--very rare**



Pathophysiology

- **Obstruction of pancreatic, intestinal gland, bile ducts**
- **Over-secretion by airway mucus glands**
- **Excess loss of sodium chloride in sweat**



Recognition

- **History**
- **Airway obstruction, chronic cough**
 - Recurrent respiratory infections
 - May be oxygen-dependent
- **Frequent, foul-smelling stools**
- **Salty taste on skin**
- **Intolerance of hot environments**



Accommodation

- **May require respiratory support, suctioning, oxygen**



Multiple sclerosis



Description

- **Progressive disease of CNS**
- **Scattered patches of myelin in the brain and spinal cord are destroyed**
- **Results in multiple, varied neurologic symptoms, signs**



Etiologies

- **Unknown**
- **Probably autoimmune disease**
- **Genetic factors influence susceptibility**
- **Women affected more often than men**



Recognition

- **Painful muscle spasms**
- **Recurrent urinary tract infections**
- **Constipation**
- **Skin ulcerations**
- **Changes of mood, from euphoria to depression**



Recognition

■ If brain affected:

- ☐ Fatigue
- ☐ Vertigo
- ☐ Clumsiness
- ☐ Muscle weakness
- ☐ Slurred speech
- ☐ Ataxia
- ☐ Blurred or double vision
- ☐ Numbness, weakness or pain in face



Recognition

- **If spinal cord affected**
 - **Tingling, numbness, or feeling of constriction in any part of the body**
 - **Extremities may feel heavy and become weak**
 - **Spasticity**



Accommodation

- Possible respiratory support
- Patient should not be expected to ambulate



Muscular dystrophy



Description

- **Inherited muscle disorder**
- **Slow progressive degeneration of muscle fibers**
- **Unknown Cause**



Recognition

- **History**
- **Little or no movement of muscle groups**



Accommodation

- **Possible respiratory support**
- **Patient should not be expected to ambulate**



Poliomyelitis



Description

- **Caused by virus**
- **Usually results in mild illness**
- **In more serious cases, attacks the CNS**
- **May result in paralysis or death**



Recognition

- History
- Paralysis



Accommodations

- If lower extremities paralyzed, patient may require catheterization
- If respiratory paralysis, patient may require tracheostomy
- Patient should not be expected to ambulate



Spina bifida



Description

- **Congenital defect**
- **Part of one or more vertebrae fails to develop**
- **Leaves portion of spinal cord exposed**



Etiology

- **Unknown**
- **May be related to dietary deficiencies during pregnancy (folic acid)**



Recognition

- **History**
- **Often associated with:**
 - **CNS infections**
 - **Obstructive uropathies**
 - **Hip joint dislocations**



Accommodations

- **Patient should not be expected to ambulate, although most can**
- **High incidence of latex sensitivity**



Myasthenia gravis



Description

- **Autoimmune disorder**
- **Results in acetylcholine production, binding at neuromuscular junction**
- **Muscles become weak and tire easily**
- **Eyes, face, throat, and extremity muscles most commonly affected**



Recognition

- **Drooping eyelids, double vision**
- **Difficulty speaking**
- **Chewing, swallowing may be difficult**
- **Extremity movement may be difficult**
- **Respiratory muscles may be weak**



Accommodations

- **Airway control**
- **Assisted ventilation**
- **Patient may be unable to ambulate**



Culturally diverse patients



Variables

- **Ethnicity**
- **Religion**
- **Language**
- **Gender**
- **Homelessness**



Accommodations

- Obtain permission to treat when possible
- Beliefs may conflict with learned medical practice
- Attempt to recruit an interpreter
- Early notification of receiving facility



Terminally Ill Patients

- **Hospice Care**
- **Advance directives, DNR**



Financial Challenges

- **Apprehensive about seeking medical care**